

ASSIGNMENT 5 | A Javascript Transformation

This assignment relates to the following Course Learning Requirements:

CLR 1: Write program code using structured programming, and top-down coding techniques

CLR 2: Produce tested code that executes correctly and consistently through the use of valid and invalid data.

CLR 3: Prepare program documentation using prescribed program specifications

Objective of this Assignment:

The objective of this assignment is to become familiar with the DOM, handling events, and practicing the usage of conditional statements and loops.

Pre-Assignment Instructions:

1. To prepare you for this assignment, read the module 6 and 7 content and embedded examples.

Assignment Tasks:

PART 1

1. Review the example navigation bar with icons at the following link: [LINK](#)
2. Review the example navigation bar with a dropdown menu at the following link: [LINK](#)
3. Create a new HTML file called "index.html"
4. Copy the template content from Annex 1 of this document to index.html
5. Give this page a title (e.g. Home)
6. Add to the top of the <body> of this page a menu bar, based on the examples provided in steps 1. and 2. above, which spans the width of the screen with the following features:
 - a. Home button:
 - i. Button contains the text "Home" along with an icon of a house
 - ii. Button points to index.html
 - iii. Button changes colour upon hovering
 - b. Products button:
 - i. Button contains the text "Products" along with a caret down (▼) icon
 - ii. Button does not point to any location
 - iii. Button contains dropdown menu upon hovering with two buttons:
 - "Currency exchange" button which points to (non-existent) file named "currency.php"
 - "Service 2" button which does not point to any location
 - iv. Button changes colour upon hovering
 - c. Contact button:

- i. Button contains the text “Contact Us” along with a caret down icon
 - ii. Button points to contact.html
 - iii. Button contains dropdown menu upon hovering with two buttons:
 - “Contactez-nous” button which contains a French flag icon
 - Another button with “Contact us” translated to a third language other than English or French, followed by the respective flag icon
 - iv. Button changes colour upon hovering
 - d. About button:
 - i. Button contains the text “About”
 - ii. Button points to aboutme.html
 - iii. Button changes colour upon hovering
7. Ensure that this menu bar appears on all pages (index.html, contact.html and aboutme.html)
8. Add a paragraph below the menu bar welcoming the user to your website and inviting them to search for products (see Part 2 for search functionality)

PART 2

1. In the <head> of index.html add the style rules contained in Annex 2 of this document.
2. In the <body> of index.html add the content from Annex 3 of this document below the paragraph element from PART 1.
3. Replace the items in the unordered list with at least 50 items of your choice
4. Add functionality to the Javascript script to ensure that the list of items is not visible when the page is loaded
5. Add functionality to the Javascript script to ensure that the list of items is not visible when no text is present in the search bar

PART 3

1. Review the example of using the date object in Javascript at the following link: [LINK](#)
2. In the <body> of index.html add a message to the top right of the page, just below the menu bar, with the following features:
 - a. Message should appear in bold, red font
 - b. Message should change based on the time of the user’s visit:
 - i. If user is visiting the website after midnight and before or at 6:00 AM, the message would be:
Good morning, you must be an early bird!
 - ii. If user is visiting the website after 6:00 AM and before or at noon, the message would be:
Good morning
 - iii. If user is visiting the website after noon and before or at 6:00 PM, the message would be:
Good afternoon
 - iv. If the user is visiting the website after 6:00 PM and before or at midnight, the message would be:
Good evening

PART 4

1. Validate all HTML files to ensure that all of the markup conforms with the latest HTML specifications. Please use the following website for validation: [LINK](#)
2. Create a .zip file containing the following files: aboutme.html, contact.html, index.html, style.css, along with any other necessary files (e.g. images)
3. Submit the .zip file through Brightspace

Important notes:

- Please make sure to follow carefully the instructions above. This should be treated as requirements set out by a customer, so please ensure that they are all met as described. This is also reflected in the rubric.
- It is important to use only a regular text editor such as a Visual Studio Code (VS Code), Notepad, or Notepad++ . An IDE, such as Eclipse or Dreamweaver, cannot be used to complete this. It is highly recommended to use VS Code.

Assignment Grading Rubric (5%)

Menu bar	Level 2	Level 1	Criterion Score
Styling	0.8 points Menu bar contains "home" icon on the home button Menu bar contains the "caret down" icon on all buttons with a dropdown menu All 4 buttons ("Home", "Products", "Contact Us" and "About") change colour upon hovering The two buttons in the "Contact Us" dropdown menu contain a flag icon (0.2 pts each)	0 points Menu bar does not contain "home" icon on the home button Menu bar does not contain the "caret down" icon on all buttons with a dropdown menu Some or all of the 4 buttons ("Home", "Products", "Contact Us" and "About") do not change colour upon hovering The two buttons in the "Contact Us" dropdown menu do not contain a flag icon (0.2 pts each)	/ 0.8
Persistence	0.3 points Menu bar appears on all pages	0 points Menu bar does not appear on all pages	/ 0.3
Links	1.6 points "Home" button points to index.html (home page) "Product" button does not point to any page "Product" button contains dropdown menu with "Currency Exchange" and "Service 2" buttons "Currency Exchange" button points to (non-existent) file named "currency.php" "Service 2" button does not point to any page "Contact us" button points to contact.html "Contact us" button contains dropdown menu with "Contactez-nous" and "Contact us" (in a third language) buttons "About" button points to "aboutme.html" (0.2 pts each)	0 points "Home" button does not point to index.html (home page) "Product" button points to a page "Product" button does not contain dropdown menu with "Currency Exchange" and "Service 2" buttons "Currency Exchange" button does not point to (non-existent) file named "currency.php" "Service 2" button points to a page "Contact us" button does not point to contact.html "Contact us" button does not contain dropdown menu with "Contactez-nous" and "Contact us" (in a third language) buttons "About" button does not point to "about.html" (0.2 pts each)	/ 1.6

Search field	Level 2	Level 1	Criterion Score
List of matching items	0.5 points List contains at least 50 items	0 points List does not contain at least 50 items	/ 0.5
New Criterion	0.5 points List populates with items matching the search string when the user enters text in the search field	0 points List does not populate with items matching the search string when the user enters text in the search field	/ 0.5
New Criterion	3 points When the page is first loaded, no list items are displayed If the search field is empty, no list items are displayed (1.5 pts each)	0 points When the page is first loaded, some list items are displayed If the search field is empty, some items are still displayed (1.5 pts each)	/ 3

Greeting	Level 2	Level 1	Criterion Score
Greeting message	0.3 points Page index.html contains a greeting in the top right area of the page Greeting message is displayed in bold, red font Message is determined using Javascript and the Date object. (0.1 pts each)	0 points Page index.html does not contain a greeting in the top right area of the page Greeting message is not displayed in bold, red font Message is not determined using Javascript and the Date object. (0.1 pts each)	/ 0.3
Dynamic updates	1 point The greeting message changes dynamically based on the following conditions: If user is visiting the website after midnight and before or at 6:00 AM, the message would be: Good morning, you must be an early bird! If user is visiting the website after 6:00 AM and before or at noon, the message would be: Good morning If user is visiting the website after noon and before or at 6:00 PM, the message would be: Good afternoon If the user is visiting the website after 6:00 PM and before or at midnight, the message would be: Good evening	0 points The greeting message does not change dynamically based on the time of the user's visit.	/ 1

Validation	Level 3	Level 2	Level 1	Criterion Score
Code validation	2 points Error-free validation of HTML files	0.5 points HTML files contain one or more errors	0 points No code submitted to be validated	/ 2

Total	/ 10			
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ANNEX 1 HTML Template

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<title>Title Here</title>
```

```
</head>
```

```
<body>
```

```
</body>
```

```
</html>
```

ANNEX 2 Search Bar Styling *(From: https://www.w3schools.com/howto/howto_js_filter_lists.asp)*

```
* {  
  box-sizing: border-box;  
}  
  
#myInput {  
  background-image: url('/css/searchicon.png');  
  background-position: 10px 12px;  
  background-repeat: no-repeat;  
  width: 100%;  
  font-size: 16px;  
  padding: 12px 20px 12px 40px;  
  border: 1px solid #ddd;  
  margin-bottom: 12px;  
}  
  
#myUL {  
  list-style-type: none;  
  padding: 0;  
  margin: 0;  
}  
  
#myUL li a {  
  border: 1px solid #ddd;  
  margin-top: -1px; /* Prevent double borders */  
  background-color: #f6f6f6;  
  padding: 12px;  
  text-decoration: none;  
  font-size: 18px;  
  color: black;  
  display: block
```

```
}  
#myUL li a: hover: not(.header) {  
    background-color: #eee;  
}
```


ANNEX 3 Search Bar Functionality (From: https://www.w3schools.com/howto/howto_js_filter_lists.asp)

```
<h2>My Phonebook</h2>
```

```
<input type="text" id="myInput" onkeyup="myFunction()" placeholder="Search for names.." title="Type in a name">
```

```
<ul id="myUL">
```

```
  <li><a href="#">Adele</a></li>
```

```
  <li><a href="#">Agnes</a></li>
```

```
  <li><a href="#">Billy</a></li>
```

```
  <li><a href="#">Bob</a></li>
```

```
  <li><a href="#">Calvin</a></li>
```

```
  <li><a href="#">Christina</a></li>
```

```
  <li><a href="#">Cindy</a></li>
```

```
</ul>
```

```
<script>
```

```
function myFunction() {
```

```
  var input, filter, ul, li, a, i, txtValue;
```

```
  input = document.getElementById("myInput");
```

```
  filter = input.value.toUpperCase();
```

```
  ul = document.getElementById("myUL");
```

```
  li = ul.getElementsByTagName("li");
```

```
  for (i = 0; i < li.length; i++) {
```

```
    a = li[i].getElementsByTagName("a")[0];
```

```
    txtValue = a.textContent || a.innerText;
```

```
    if (txtValue.toUpperCase().indexOf(filter) > -1) {
```

```
      li[i].style.display = "";
```

```
    } else {
```

```
      li[i].style.display = "none";
```

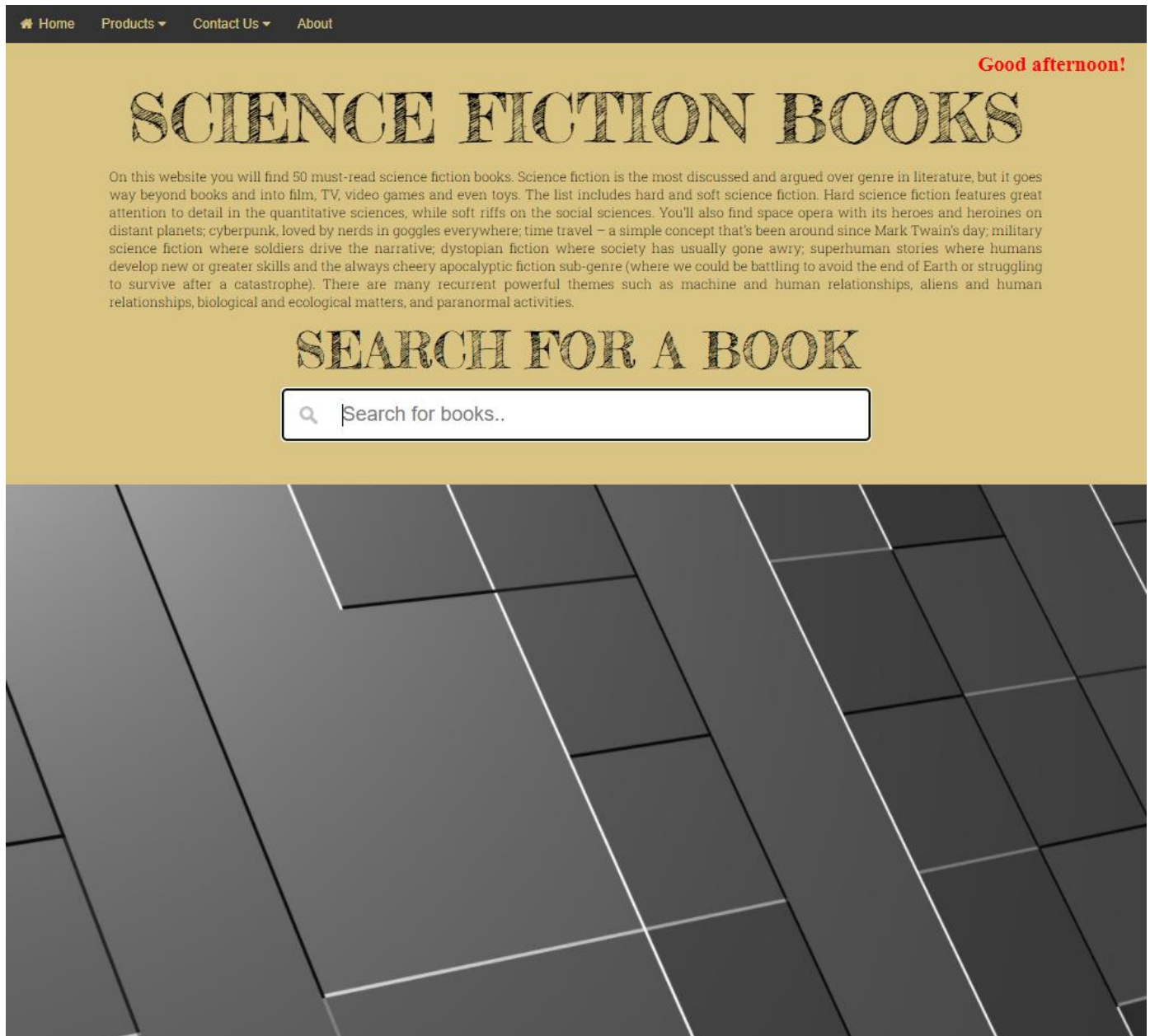
```
    }
```

```
  }
```

}

</script>

ANNEX 4 Example Implementation



Good afternoon!

SCIENCE FICTION BOOKS

On this website you will find 50 must-read science fiction books. Science fiction is the most discussed and argued over genre in literature, but it goes way beyond books and into film, TV, video games and even toys. The list includes hard and soft science fiction. Hard science fiction features great attention to detail in the quantitative sciences, while soft riffs on the social sciences. You'll also find space opera with its heroes and heroines on distant planets; cyberpunk, loved by nerds in goggles everywhere; time travel – a simple concept that's been around since Mark Twain's day; military science fiction where soldiers drive the narrative; dystopian fiction where society has usually gone awry; superhuman stories where humans develop new or greater skills and the always cheery apocalyptic fiction sub-genre (where we could be battling to avoid the end of Earth or struggling to survive after a catastrophe). There are many recurrent powerful themes such as machine and human relationships, aliens and human relationships, biological and ecological matters, and paranormal activities.

SEARCH FOR A BOOK

A Journey to the Center of the Earth

The War of the Worlds

Brave New World

Earth Abides

Foundation

The Illustrated Man

The Demolished Man

Ring Around the Sun

Mission of Gravity

The Chrysalids

The Death of Grass or No Blade of Grass

Starship Troopers

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